



# **NAVSEA 53 PERSPECTIVE ON THE SOFTWARE CM PROCESS**

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# D-30 PROCESS

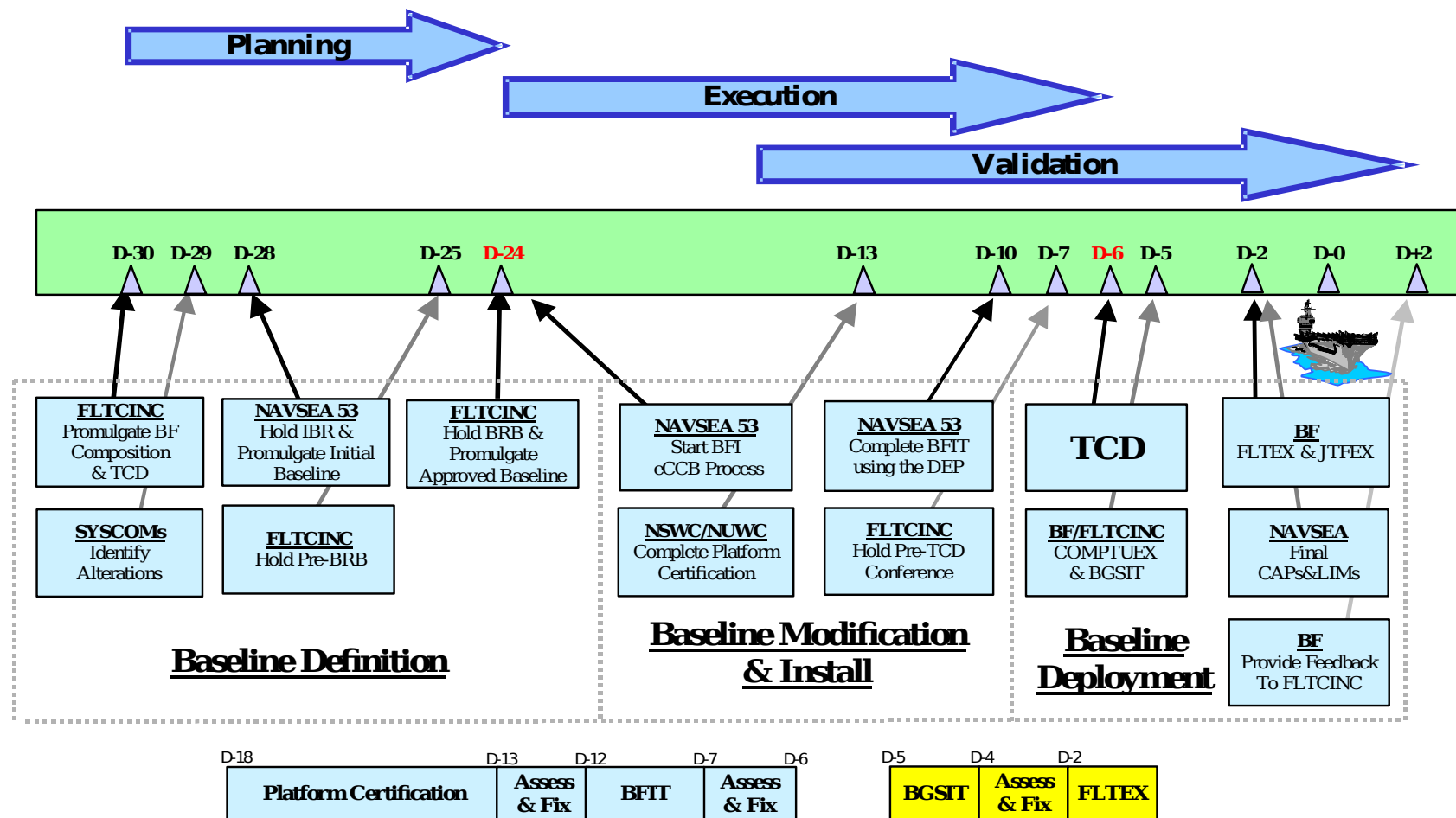
- **REQUIREMENT FOR PROCESS**
  - INTEROPERABILITY PROBLEMS
    - MULTIPLE/DUAL TRACKS AND TRACK NUMBER ISSUES
    - ID CONFLICTS / OPERATOR OVERLOAD
    - EMI AND SYSTEM OVERLOADS
  - CAUSES
    - POOR SYSTEMS ENGINEERING
    - INADEQUATE TESTING AND CERTIFICATION
    - INADEQUATE CM
  - RESULTS
    - SHIPS TIED TO THE PIER
    - OPERATOR OVERLOAD
    - LOSS OF CAPABILITY
    - BLUE ON BLUE ENGAGEMENTS



# **D-30 PROCESS**

- **D-30 PROCESS ESTABLISHED**
  - “BASELINE” BATTLE FORCES
    - ESTABLISH PLANNED CONFIGURATIONS 2 YEARS AHEAD
    - MAINTAIN TIGHT CONFIGURATION CONTROL
    - TEST ASHORE BEFORE INSTALLING SYSTEMS AFLOAT
      - TEST SYSTEMS “WITHIN THE LIFELINES”
      - TEST SYSTEMS INTRA-SHIP
    - COMPREHENSIVE SHIPBOARD TESTING
    - EVALUATE PROPOSED CHANGES VIA CCB PROCESS
  - BASELINE PHASES
    - DEFINITION
    - MODIFICATION AND INSTALL
    - CERTIFICATION

# Notional D-30 Process





# **BASELINE DEFINITION**

- **ISSUE DATA CALL FOR IBR**
  - ASSESS EXISTING INSTALLATIONS (H/W & S/W)
  - DETERMINE PLANNED ADDITIONS/DELETIONS
- **PUBLISH INITIAL BASELINE (D-28)**
  - DETERMINE POSSIBLE CONFLICTS
    - INTEROPERABILITY
    - COST
    - SCHEDULE
- **REVISE PROPOSED BASELINE (D-25)**
- **CINC APPROVES FINAL BASELINE (D-24)**



# **BASELINE MODIFICATION AND INSTALL**

- **FINAL BASELINE CONFIGURATION**
  - ESTABLISHED BY CINC AT D-24
    - EXISTING HARDWARE AND SOFTWARE
    - ALL PLANNED INSTALLS AND UPGRADES
    - MODIFIED ONLY BY APPROVED CCB CHANGES
    - AVAILABLE ONLINE
  - ALL INSTALLS TO BE COMPLETED BY TCD (D-6)
    - EXCEPTIONS REQUIRE MESSAGE AND CCB ACTION
    - INSTALLS SCHEDULED FOR CNO AVAIL WHEN POSSIBLE



# **BASELINE CERTIFICATION**

- **PLATFORM CERTIFICATION**
  - ENSURES OPERABILITY WITHIN THE LIFELINES
  - CERTIFIED BY PEO-TSC (AEGIS), NAVSEA 53 (NON-AEGIS), PEO-SUBS (SSNs), NAVAIR (AIRCRAFT)
- **BATTLE FORCE INTEGRATION TESTING (BFIT)**
  - SHORE BASED TESTING OF DESIGNATED SYSTEMS
  - TESTS INTEROPERABILITY BETWEEN SHIPS/SYSTEMS
  - CAPABILITIES AND LIMITATIONS DEFINED AND PUBLISHED
- **BATTLE GROUP SYSTEMS INTEGRATION TEST**
  - ONBOARD TESTING/TRAINING EVENT (INPORT AND U/W)
    - IDENTIFIES AND RESOLVES INSTALLATION ISSUES
    - IDENTIFIES EMI/INTEROPERABILITY ISSUES NOT FOUND ASHORE
    - PROVIDES TRAINING TO CREWS



# DEPLOYMENT GOALS

- **ALL BATTLE FORCE COMPONENTS DEPLOY WITH**
  - ALL BASELINED SYSTEMS INSTALLED
  - ALL SYSTEMS FULLY INTEROPERABLE
  - CLEAR UNDERSTANDING OF THE CAPABILITIES OF THOSE SYSTEMS
  - LIMITATIONS OF SYSTEMS DEFINED AND WORK AROUNDS IN PLACE WHEREVER POSSIBLE
  - TRAINED CREWS
  - ADEQUATE TECHNICAL AND MATERIAL SUPPORT





# SOFTWARE CM

- **SOFTWARE CM IS ESSENTIAL TO EACH PHASE OF THE BATTLE FORCE BASELINING PROCESS**
  - **BASELINE DEFINITION**
    - NEED TO KNOW EXISTING CONFIGURATION TO BEGIN PLANNING
      - MUST HAVE ACCURATE START POINT
    - NEED TO KNOW PLANNED UPGRADES
      - BOTH NEW SYSTEMS AND CHANGES TO EXISTING SYSTEMS
  - **BASELINE MODIFICATION AND INSTALL**
    - NEED TO KNOW CHANGES TO PLANS
      - SOFTWARE PATCHES AND EMERGENT FUNCTIONALITY CHANGES
    - NEED TO KNOW WHEN INSTALLATIONS ARE COMPLETED
      - ALSO IF THE INSTALLATION IS WHAT WAS EXPECTED



# SOFTWARE CM

- BASELINE CERTIFICATION
  - NEED TO KNOW WHAT SOFTWARE TO TEST ASHORE
    - PRESENT CONFIGURATION AND PLANNED UPGRADES
      - » TO DEVELOP ADEQUATE TESTS AND EVALUATE THE RESULTS
  - NEED TO KNOW LATEST CHANGES TO PROGRAMS
    - PATCH VERSIONS AND FUNCTIONALITY CHANGES
  - NEED TO KNOW ANY DEVIATION FROM TESTED BUILDS
    - PATCHES TO FIX EMERGENT PROBLEMS
  - NEED TO ENSURE THAT CAPS & LIMS REFLECT THE ACTUAL SYSTEMS INSTALLED
  - NEED TO PREPARE PROPERLY FOR BGSIT
- FLEET SUPPORT
  - ALLOWS PLANNING FOR PROPER TRAINING
  - PROVIDES INFORMATION TO ENSURE SUPPORT IS IN PLACE



# CONCLUSION

- **THERE ARE APPROXIMATELY 400 PROGRAM OFFICES IN THE NAVY SUPPLYING SYSTEMS TO OVER 300 SHIPS. CONTACTING THEM ALL CONSTANTLY FOR CURRENT CONFIGURATION STATUS IS DIFFICULT. THERE NEEDS TO BE ONE SOURCE TO GO TO FOR ACCURATE CONFIGURATION INFORMATION.**
- **COMNAVSEASYS COM 150405Z JUN 01 MANDATES THE USE OF CDMD-OA AS THE SINGLE CENTRAL REPOSITORY FOR ALL NON-NUCLEAR NAVSEA AND PEO SHIP CONFIGURATION DATA.**

**ATTEMPTING TO DEFINE AND IMPLEMENT A BATTLE FORCE BASELINE WITHOUT ACCURATE SOFTWARE CONFIGURATION MANAGEMENT IS LIKE NAVIGATING WITHOUT A COMPASS - YOU MAY GET TO WHERE YOU WANT TO GO, BUT IT WILL BE BY ACCIDENT**